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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,624	12/19/2000	Julian D. Warhurst	107047-0003	9878

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EXAMINER
QUAN, ELIZABETH S

ART UNIT	PAPER NUMBER
1743	17

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicati n No.	Applicant(s)	
	09/740,624	WARHURST ET AL.	
	Examin r	Art Unit	
	Elizabeth Quan	1743	

-- The MAILING DATE of this communication appears on th cover sh t with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 11-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 11-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,056,427 to Sakabe in view of U.S. Publication No. 2002/0039545 to Hall et al.

Referring to claims 1 and 11-17, Sakabe et al. disclose a cover assembly for a microplate (70) (see FIG. 7; COL. 1, lines 5-25). The assembly comprises a layer of material (73), pressure plate (74), and cover (see FIG. 7; COL. 1, lines 5-25). The layer of material (73) is shaped and dimensioned to removably seal a plurality of well openings (71) of the microplate (70) (see FIG. 7; COL. 1, lines 5-25). The pressure plate (74) is disposed on the layer of material (73) for dispersing a compressive force in a generally uniform manner across the layer of material (73) (see FIG. 7; COL. 1, lines 5-25). The cover has a top and first and second sides (see FIG. 7). The top is shaped to generate the compressive force when the cover is engaged with the microplate (70) (see FIG. 7; COL. 1, lines 5-25).

Sakabe et al. do not disclose the first and second sides of the cover each with an inward projection for supporting a bottom edge of the microplate. However, Hall et al. disclose the first and second sides (7) of the cover (1) each with an inward projection (15) for holding the microplate (70) (see FIGS. 5 and 6; SECTION [0032]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cover assembly of Sakabe et al. to provide each of the first and

second sides of the cover with an inward projection as in Hall et al. to hold the microplate.

Sakabe et al. do not disclose a plurality of vertical tabs extending downward from the projections and a plurality of recesses in the cover assembly that register with the tabs, such that a plurality of the cover assemblies can be stacked with the vertical tabs of each cover assembly extending down into the recesses of a cover assembly that is disposed beneath. Hall et al. disclose a plurality of vertical tabs (17) extending downward from the projections (15) and a plurality of recesses (13) in the cover assembly (1) that register with the tabs (17), such that a plurality of the cover assemblies (1) can be stacked with the vertical tabs (17) of each cover assembly (1) extending down into the recesses (13) of a cover assembly that is disposed beneath (see FIGS. 14 and 15; SECTION [0032]). The configuration is significant in providing stability and geometric alignment of the stack (see FIGS. 14 and 15; SECTION [0032]). Since covers are normally used in automation based systems, a geometrically constrained stack is important to the pick and place robotic manipulation (see FIGS. 14 and 15; SECTION [0032]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cover assembly of Sakabe et al. to provide a plurality of vertical tabs and recesses in which the tabs register with the recesses as in Hall et al. to provide stability and geometric alignment of the stack for easy pick and place robotic manipulation.

Sakabe et al. do not disclose the top of the cover with a central, longitudinally extending portion contacting the pressure plate and lateral portions extending upwardly

from the central portion at their inner edges and sides extending downwardly from the outer edges of the lateral portions, such that the lateral portions and central portion provide a resilient force that bears down on the pressure plate and upward on the bottom edges of the microplate. Hall et al. disclose the top of the cover (3) with a central, longitudinally extending portion (19) contacting the pressure plate (23) and lateral portions (19) extending upwardly from the central portion (19) at their inner edges (see FIGS. 5 and 6). The sides (7) extend downwardly from the outer edges of the lateral portions, such that the lateral and central portions (19) provide a resilient force that bears down on the pressure plate (23) on the bottom edges of the microplate (see FIGS. 3, 5, 6, 9, and 10; SECTIONS [0012] and [0031]). The configuration maintains a compressive force on the pressure plate (23) to effectively seal the microplate (see FIGS. 3, 5, 6, 9, and 10; SECTION [0031]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cover assembly of Sakabe et al. to provide the claimed cover configuration as in Hall et al. to maintain a compressive force on the pressure plate to effectively seal the microplate.

Sakabe et al. do not disclose longitudinal tabs extending from the first and second sides, such that the cover may be disengaged from or engaged with the microplate by displacing the longitudinal tabs laterally outwardly or inwardly to move the projections away from or beneath the bottom edges of the microplate. Hall et al. disclose longitudinal tabs with locator holes (11) extending from the first and second sides (7), such that the cover (3) may be disengaged from or engaged with the microplate by displacing the longitudinal tables with locator holes (11) laterally outwardly or inwardly

to move the projections (15) away from or beneath the bottom edges of the microplate (see FIGS. 3, 5, 6, 10, and 11; SECTIONS [0029]-[0033]). The multi-well plate can be accessed multiple times by displacing the side walls (7) and removing the cover (3) by robotic systems (see SECTION [0012]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cover assembly of Sakabe et al. to provide the claimed cover assembly configuration as in Hall et al. to allow robotic systems to access the multi-well plate multiple times by displacing the side walls and removing the cover.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,056,427 to Sakabe et al. in view of U.S. Publication No. 2002/0039545 to Hall et al. as applied to claims 1 and 11-17 above, and further in view of U.S. Patent No. 6,372,144 to Vassarotti and U.S. Patent No. 5,935,277 to Autenrieth et al. and U.S. Patent No. 5,108,603 to Schuette.

Referring to claim 2, Sakabe et al. in view of Hall et al. do not disclose a pressure plate with one or more horizontal tabs extending generally parallel to the top and sides of the cover thereby enabling the cover to be engaged with or disengaged from the microplate by a robotic system. According to Merriam-Webster's Collegiate Dictionary, plate is defined as a smooth flat thin piece of material, and pressure is defined as the action of a force against an opposing force or to apply pressure to. It follows that a pressure plate is defined as a smooth flat thin piece of material that performs the action of a force against an opposing force or applies pressure to. A search of the prior art reveals that a pressure plate could be resilient material, such as a gasket, as disclosed in Vassarotti (see COL. 4, lines 57-60). Autenrieth et al. disclose an axially movable

reaction space wall in the form of a perforated movable pressure plate (4) made of a sheet metal material (see FIGS. 1-3; COL. 3, lines 48-52). Schuette discloses that gasket (118) with one or more horizontal tabs (418) extending generally parallel to the top and sides of the cover thereby enabling the cover to be easily engaged with or disengaged from the microplate by a robotic system (see FIGS. 1 and 4A; COL. 7, lines 31-37 and 64-68). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cover assembly of Sakabe et al. in view of Hall et al. to provide one or more horizontal tabs on the pressure plate as in Vassarotti and Autenrieth et al. and Schuette for easy removal of the pressure plate from the microplate.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,056,427 to Sakabe et al. in view of U.S. Publication No. 2002/0039545 to Hall et al. as applied to claims 1 and 11-17 above, and further in view of U.S. Patent No. 6,486,401 to Warhurst et al. or U.S. Patent No. 6,426,050 to Pham et al. or U.S. Patent No. 6,254,833 to Shumate et al. or U.S. Patent No. 6,361,746 to Wlodarski.

Referring to claim 3, Sakabe et al. in view of Hall et al. do not disclose the first and second sides of the cover with apertures rendering at least portions of the side surfaces of the microplate visible when the cover is engaged with the microplate. Warhurst et al. show the first and second sides of the cover with apertures rendering at least portions of the side surfaces of the microplate visible when the cover is engaged with the microplate, as indicated in FIG. 3A. Shumate et al. also show apertures on the first and second sides of the cover making portions of the side surfaces of the microplate visible when the cover is engaged with the microplate (see FIGS. 1-12). Pham et al. also

show apertures on the first and second sides of the cover that make portions of the side surfaces of the microplate visible when the cover is engaged with the microplate (see FIGS. 57-11, 127, 129, and 130). Wlodarski also shows apertures on the first and second sides of the cover to allow viewing of the side surface of the microplate when the cover is engaged with the microplate (see FIG. 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Sakabe et al. to include at apertures on the first and second sides of the cover as in Warhurst et al. or Pham et al. or Shumate et al. or Wlodarski to enable viewing of contents in the microplate when the cover engages the microplate.

Response to Arguments

Examiner has considered the remarks made in communication filed 3/19/2003. Applicant submits that Hall et al. discloses a microplate assembly that includes a gasket and a cover that, in broad terms, has the characteristic of the cover described above or claimed. Applicant further maintains that this reference does not disclose or suggest the inclusion of a pressure plate, such that compressive force is not uniformly applied over the surface of the gasket. In response, Hall et al. is used as a secondary reference to provide for the limitations of the cover. Pressure plate can be broadly interpreted as a plate, which has the ability to exert a force on another object. According to Merriam-Webster's Collegiate Dictionary, plate is defined as a smooth flat thin piece of material, and pressure is defined as the action of a force against an opposing force or to apply pressure to. It follows that a pressure plate is defined as a smooth flat thin piece of material that performs the action of a force against an opposing force or applies pressure to. A search of the prior art reveals that a pressure plate could be resilient material, such as a gasket, as

disclosed in Vassarotti (see COL. 4, lines 57-60). The primary reference Sakabe et al. provides the limitation of the pressure plate. The claim does not recite the limitation of a compressive force uniformly applied over the surface of the gasket. Even if the claim were to recite such a limitation, it is noted that the claim is directed toward the apparatus, and since the prior art has all the structural elements of the claim, the method limitation is inherent to the structure. Furthermore, method limitations have no patentable weight in apparatus claims.

Conclusion

With the discovery of prior art, prosecution has been re-opened to consider the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (703) 305-1947. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (703) 308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elizabeth Quan
Examiner
Art Unit 1743

eq
April 18, 2003

Jill Warden
Supervisory Patent Examiner
Technology Center 1700